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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,167	03/09/2001	Brett Hannigan	EWG-140 US	4738

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Elmer Galbi
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EXAMINER

BHATNAGAR, ANAND P

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 06/18/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/803,167

Applicant(s)

HANNIGAN ET AL.

Examiner

Anand Bhatnagar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/28/03 paper # 7.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-9 and 14 is/are allowed.
- 6) ☒ Claim(s) 1,4,10 and 13 is/are rejected.
- 7) ☒ Claim(s) 2,3,5, and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.
The oath or declaration is defective because: The declaration is Unassigned by one of the applicants.

Response to Arguments

2. Applicant's amendment (paper # 7 filed on 03/28/03) has been entered and made of record.
3. Applicant representative has amended claims 1, 10 and 14. Claims 6-9 and 14 have been previously allowed in paper # 6 filed on 12/30/02. Claims 1-14 are pending.
4. Applicant's representative defines on page 5 (of paper #7, top paragraph) the difference what he considers to be a conventional watermark and what he considers to be a digital watermark. Applicant considers a conventional watermark to be "formed by modifying the fibers of a substrate such as paper or apply ink or other material on top of the substrate" and can be "formed as continuous marks or they can be formed by a series of dots, that is by digital markings". Further he defines what he considers a digital watermarking to be which is "steganographic or cryptographic techniques that "hide" data in images or audio files" (paper #7 page 5 bottom paragraph).

The patent office agrees about the definition of a conventional watermark but the stance of the patent office for a digital watermark is different. Patent office agrees that placing hidden data into images and audio files is watermarking but is only considered "digital watermarking" if the hidden data is of a "digital" structure being embedded onto a "digital" signal source. The watermarking in the applicant's instant invention describes placing a substrate onto physical mediums (paper and movie screen) (Specifications of the instant invention; page 3 top paragraph and page 5, 2nd and 3rd paragraphs). Applicant's representative considers placing a substrate onto these physical mediums as digital watermarking because the way the substrate is applied on the physical mediums will change specific pixels directly in the images when the image is either printed on the paper or projected onto a screen. The patent office does not consider watermarking of the applicant's instant invention as digital watermarking, because there is no digital signal source nor is the data being hidden of a digital structure. The patent office considers the watermarking techniques of the applicant's instant invention as conventional watermarking and will address the claims as such.

5. Applicant's representative in essence argues that the prior art of Stenzel does not teach "watermarking an image" (paper # 7, page 7, 2nd paragraph) as claimed by the applicant. Applicant in the specifications (paper #7, page 7, 2nd paragraph) claims that the applicant's technique in

the instant invention results in a copied image of a watermarked image will bear the watermark and that a copied image of the hallmark/watermark image of Stenzel will not bear the watermark. Nowhere in the claim language does the applicant claim this feature of a copy of a watermarked image bearing the watermark.

Secondly, applicant's representative argues that the reference of Desie teaches to "try and avoid having the underlying features affect the printing that is done on the top of these features which is opposite of the applicant's teachings" (paper #7, page 7, bottom paragraph). Examiner disagrees. The reference of Desie teaches a method of printing security features onto various substrates with changing thickness, flexibility, composition, etc. (Desie; col. 5 lines 24-28). Nowhere in the reference of Desie is taught that the printing is done in a way as not to influence the image that is printed on top. In fact in the background of the reference of Desie he specifically states that applying a watermark substrate to a paper with an image applied on top of it will not be smooth in the areas of the watermark substrate (col. 1 lines 18-28).

Lastly, applicant's representative argues (paper # 7, page 8, 1st paragraph) that the reference of Daigneault relates to printing a conventional watermark on paper and that it is not the same as taught and claimed by the applicant. Examiner agrees that the watermarking taught by Daigneault is a conventional watermark which examiner reads as the same as taught in the applicant's instant invention because they are both

watermarking paper substrates. As discussed above (#4), examiner sees the watermarking of the applicant's invention as conventional watermarking and not digital watermarking as claimed.

Examiner stands by the rejection in paper #6 filed on 12/03/02.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stenzel et al. (U.S. patent 4,591,707) in view of Desie et al (U.S. patent 5,880,760).

Regarding claims 1 and 10: Stenzel et al. discloses a method of watermarking an image (col. 3 lines 46-48 and 65-67) comprising the steps of, where hallmarks "watermarks" are layered on top of a paper substrate) in a first material on a substrate (col. 3 lines 55-65 and col. 8 lines 41-43), pattern that represents a digital watermark (col. 3 lines 52-55 and col. 4 lines 12- 15, where the hallmark has a pattern and is read by machine), said first material being transparent (col. 4 lines 38-40); printing an image on said substrate (col. 4 lines 3-10). Stenzel et al. does not

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disclose that image areas that are printed on top of the hallmark "watermark" areas will have different characteristics. It would have been obvious to one skilled in the art to combine the disclosure of Desie et al. to the hallmark on paper invention of Stenzel et al. because they are analogous in security marks on paper documents. It is well known and conventional that security marks placed on a paper gives the paper an uneven surface and an image printed on it will have different characteristics in the areas where the security marks are located as disclosed by Desie et al. (Desie et al. col. 1 lines 15-28). The motivation for the combination would be for any conventional reasons such as the range of signal, the availability of software or hardware, etc.

Regarding claim 11: The method wherein said material is transparent (col 4 lines 38-40, where it is invisible),

Regarding claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stenzel et al. (U.S. patent 4,591,707) in view of Desie et al (U.S. patent 5,880,760) and Daigneault et al. (U.S. patent 6,334,678).

Regarding claims 4 and 13: The method wherein said image is printed using an ink jet printing process.

Stenzel et al. discloses a watermarking system where a hallmark "watermark" is placed on a paper substrate and an image is printed on top of the hallmark layer. Stenzel et al. does not disclose to use an ink jet

printer to print the image onto the paper substrate with the hallmark layer. Daigneault et al. teaches to use a ink jet print to print an image onto a paper substrate that contains a watermark (Daigneault et al., col. 2 lines 15-21). It is a matter of configuration of what type of printer to use to print an image on a paper substrate.

Allowable Subject Matter

7. Claims 6,7,8,9, and 14 are allowed.

Claims 2,3,5, and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory

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period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Bhatnagar whose telephone number is (703) 306-5914, whose supervisor is Amelia Au whose number is 703-308-6604, group fax is 703-872-9314, and Tech center 2600 customer service office number is 703-306-0377.

AB

Anand Bhatnagar

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June 5, 2003

Amelia M. Au

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